

Distributed Security Architectures

First Quarter 2002 Progress Report

Covers work done Oct through December, 2001

Personnel:

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Standalone Server

We completed an implementation of Akenti as a standalone server, incorporated it into our testing framework and code distribution package.

Apache-Akenti server

Work on the Apache-Akenti was completed. The mod_akenti authorization module was modified to co-exist with other authorization modules, so that a Web server could use Akenti authorization on part of its document tree and other authorization methods such as Basic Authorization or SSL style authorization on other parts. Mod_akenti was included in our code distribution package. Detailed documentation on how to install and use it can be found at http://www-itg.lbl.gov/Akenti/docs/mod_akenti.html.

Akenti Policy Engine

More integrated testing was done on the policy engine both in the form of dedicated test programs and as a result of deploying and using the Apache-akenti web server and the Akenti standalone server.

Certificate Generators

The certificate generator library code was restructured to more closely follow the C++ design with the goal of making it more robust and easier to understand. We are increasing the support for the XML certificate format, anticipating that we may eventually switch to pure XML certificates. Progress was made on the GUI code to generate Policy Certificates.

Compiled under RedHat Linux

All the code was compiled on RedHat 7.1 & 2 Linux. There were a number of programming bugs to be fixed including an incompatibility between socket usage in Solaris and Linux. We also solved a long-standing problem which caused the UtcTime on certificates to be one-hour off from local time.

Code Distribution

Updated Akenti 1.1 source and binary code for Solaris and Redhat Linux is now available from our Web site. <http://www-itg.lbl.gov/Akenti/download.html>. The binary distribution includes all the third party libraries and Java classes that are needed to run a sample Akenti service. It also includes sample identity credentials and Akenti policy credentials.

We included a similar distribution on the Distributed Systems Department Grid Tools CD that was handed out at SC01. (copies of that CD are still available).